

**Amendments to the Claims:**

Claims 2 and 3 have been cancelled.

Claim 1 has been amended to incorporate the limitations of claim 3 and reorder elements (b) and (c).

The dependency of claim 4 has been changed so that it now depends from amended claim 1.

Claim 5 is dependent upon claim 4.

Claim 16 is amended to correct the omission of the period at the end of the claim.

The listing of claims beginning on the next page replaces all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (currently amended) An intrusion detection system comprising:

- (a) a pair of optical lenses arranged a predetermined distance apart and at a predetermined height above a ground reference plane and having overlapping fields of view within an area to be monitored to form a common field of view said pair of lenses being tilted in a downward direction towards said ground reference plane;
- (b) ~~at least one light sensitive device responsive to light from each of the optical lenses wherein the said at least one light sensitive devices includes light sensitive elements arranged in lines of pixels operably selected by the range discriminator to define the ranges included within the range gate~~ a range discriminator for setting at least one range gate so as to sense objects within said common field of view within predetermined ranges and for ignoring objects that appear outside of said predetermined ranges;
- (c) ~~a range discriminator for setting at least one range gate so as to sense objects within said common field of view within predetermined ranges and for ignoring objects that appear outside of said predetermined ranges~~ at least one light-sensitive device responsive to light from each of the optical lenses wherein the said at least one light-sensitive devices includes light-sensitive elements arranged in lines of pixels operably selected by the range discriminator to define the ranges included within the range gate; and
- (d) a range detector responsive to signals from said light-sensitive device operable to determine a range to an object within said common field of view and within said predetermined ranges.

2-3. (cancelled)

4. (currently amended) The intrusion detection system of claim [[3]] 1 wherein multiple sets of lines of pixels are operably selected by the range discriminator to provide multiple range gates for the selective detection of objects within said common field of view.

5. (previously presented) The intrusion detection system of claim 4 further including a velocity detector responsive to signals from said light-sensitive device and operable to determine velocity of an object sensed by said range detector within the ranges spanned by said range gates.

6. (previously presented) An intrusion detection system for monitoring a secure area comprising:

- (a) a pair of electro-optical devices arranged a predetermined distance apart and at a predetermined height above a ground reference plane, said devices being tilted in a downward direction and having a common field of view in the secure area to be monitored, each electro-optical device comprising a lens and a light-sensitive element, each light-sensitive element having a pixel array of multiple lines of pixels; and
- (b) a data processing device responsive to the light-sensitive element of each electro-optical device, the data processing device having a range detector to detect the presence of objects in the area to be monitored and the range to each of said objects, said data processing device including a range gate selector for creating multiple zones of ranges within said secure area to be monitored by selecting predetermined ones of said multiple lines of pixels in each said respective pixel array, and extracting image data therefrom.

7. (cancelled)

8. (original) The intrusion detection system of claim 6 wherein said data processing device further includes a velocity detector for determining velocity of objects detected by said range detector.

9. (cancelled)

10. (previously presented) The intrusion detection system of claim 6 further including a light-sensitive device for each lens.

11. (cancelled)

12. (previously presented) The intrusion detection system of claim 6 wherein said multiple lines of pixels are operably selected by the range discriminator to provide multiple range gates for the selective detection of objects within said common field of view.

13. (original) The intrusion detection system of claim 12 further including a velocity detector responsive to signals from a light-sensitive device and operable to determine velocity of an object sensed by said range detector within the ranges spanned by said range gates.

14. (previously presented) An intrusion detection system for monitoring a secured area comprising:

- (a) a pair of passive electro-optical sensors, each sensor including a lens and a light-sensitive device having rows of electronically scanned pixel elements, each row of pixel elements being responsive to light from objects appearing within said area at respective ranges, said pair of sensors being mounted a predetermined distance apart and aimed downward into said secured area at an angle obtuse to a horizontal reference line; and
- (b) a data processing module coupled to the light-sensitive devices and having a range gate selector for selecting predetermined lines of pixels for processing scanned image data from objects appearing at predetermined ranges to determine a range to each of said objects appearing within said secure area at ranges defined by said range gate selector.

15. (original) The intrusion detection system of claim 14 wherein said range gate selector is operable to create multiple zones of ranges within said secure area to be monitored.

16. (currently amended) The intrusion detection system of claim 14 wherein said data processing device further includes a velocity detector for determining the velocity of objects detected by said range ~~detector~~ detector.